



TOWN OF ARLINGTON  
REDEVELOPMENT BOARD

Application for Special Permit In Accordance with Environmental Design  
Review Procedures (Section 11.06 of the Zoning Bylaw)

Docket No. \_\_\_\_\_

1. Property Address 483 SUMMER ST. ARLINGTON, MA 02474  
Name of Record Owner(s) CAMPOBASSO PROPERTIES LLC Phone 781-646-5569  
Address of Owner 290 MASS. AVE, ARLINGTON, MA 02474  
Street \_\_\_\_\_  
City, State, Zip \_\_\_\_\_
2. Name of Applicant(s) (if different than above) SAME AS ABOVE  
Address \_\_\_\_\_  
Phone \_\_\_\_\_  
Status Relative to Property (occupant, purchaser, etc.) OWNER \_\_\_\_\_
3. Location of Property MAP 082.0, BLOCK 0003, LOT 0003.0  
Assessor's Block Plan, Block, Lot No. \_\_\_\_\_
4. Deed recorded in the Registry of deeds, Book 13819, Page 139;  
-or- registered in Land Registration Office, Cert. No. \_\_\_\_\_, in Book \_\_\_\_\_, Page \_\_\_\_\_.
5. Present Use of Property (include # of dwelling units, if any) REPAIR SHOP  
(VACANT) \_\_\_\_\_
6. Proposed Use of Property (include # of dwelling units, if any) MIXED USE  
RESIDENTIAL + COMMERCIAL FOUR STORES, 1 OFFICE, 7 RESIDENCES \_\_\_\_\_
7. Permit applied for in accordance with  
the following Zoning Bylaw section(s) 5.04/s.7.13 Mixed use development -residential/commercial  
Article 11 s.11.06 Special Regulations  
8.01A Parking for residential/commercial mixed use  
8.12 Reduction for parking requirement for mixed development  
section(s) title(s) \_\_\_\_\_
8. Please attach a statement that describes your project and provide any additional information that may aid the ARB in understanding the permits you request. Include any reasons that you feel you should be granted the requested permission.

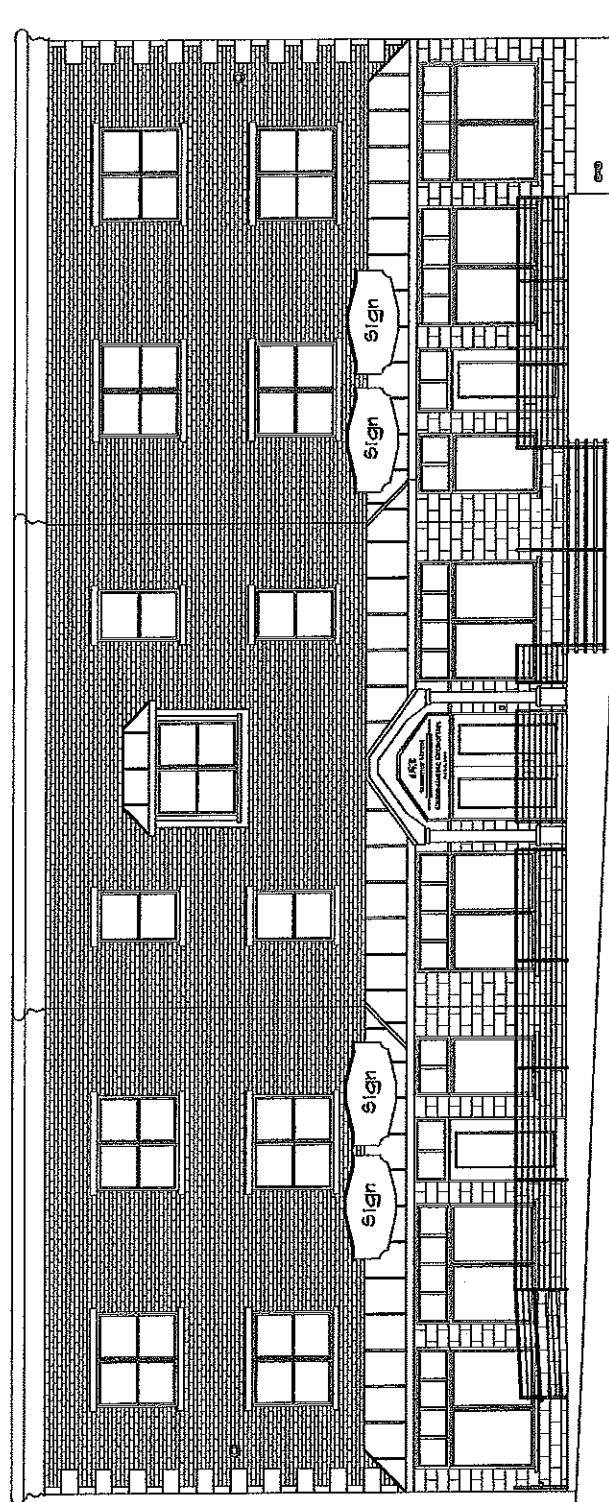
(In the statement below, strike out the words that do not apply)

The applicant states that CAMPOBASSO PROPERTIES LLC is the owner -or- occupant -or- purchaser under agreement of the property in Arlington located at 483 SUMMER ST. ARLINGTON, MA 02474 which is the subject of this application; and that unfavorable action -or- no unfavorable action has been taken by the Zoning Board of Appeals on a similar application regarding this property within the last two years. The applicant expressly agrees to comply with any and all conditions and qualifications imposed upon this permission, either by the Zoning Bylaw or by the Redevelopment Board, should the permit be granted.

Signature of Applicant(s) Campobasso Properties, LLC, by its attorney, Robert J. Annese

290 MASS. AVE ARLINGTON, MA 02474

781-646-5569



Lot Size: 10,000 sf  
 Zoning District: B2  
 Proposed Use: Mixed Use, 4 Stores, 1 Office  
 and 7 Residences  
 Building: 3 Story with Cellar  
 Wood Frame with Fire Protection  
 Foot Print: 3,832 sf  
 Gross Residential Floor Area: 7,100 sf  
 Total Gross Floor Area: 11,946 sf  
 Open Area Landscaped 969 sf  
 Open Area Usable 1,720 sf

Prepared For: Campobasso Properties LLC  
 230 Mass. Ave.  
 Arlington, MA 02474  
 Prepared By: A. R. Romayne & Sons LLC  
 28 Grove Street Place  
 Arlington, MA 02474  
 Date: 9/7/16  
 Scale: 1/4" = 1'-0"

### Proposed 483 Summer Street

Site Plan of Lots 483 & 489 Summer Street  
 Proposed Site Plan of Lots 483 & 489 Summer Street  
 Orange Street Street on Lots 483 & 489 Summer Street  
 Landscape Plan on Lots 483 & 489 Summer Street  
 A-1 Celler Plan  
 A-1 Ground Level  
 A-2 Second Level  
 A-3 Third Floor  
 A-4 Roof Top  
 A-5 Residence Staircase  
 A-6 North Elevation  
 A-7 East Elevation  
 A-8 West Elevation



Town of Arlington Redevelopment Board  
Application for Special Permit in accordance with  
Environmental Design Review (Section 11.06)

Required Submittals Checklist

File each in triplicate except for model  
References are to Arlington Zoning Bylaw

- 1 Dimensional and Parking Information Form
- 2 Site plan of proposal (Section 10.11(c))
- 3 Model, if required (Section 11.06(d)(1))
- 4 Drawing of existing conditions (Section 11.06(d)(3))
- 5 Drawing of proposed structure (Section (d)(3))
- 6 Proposed landscaping. May be incorporated into site plan (Section 11.06(d)(3))
- 7 Photographs (Section 11.06(d)(4))
- 8 Impact statement (Section 11.06(d)(6))
- 9 Application and plans for sign permits (Section 11.06(d)(6))

FOR OFFICE USE ONLY

- Special Permit Granted Date: \_\_\_\_\_
- Received evidence of filing with Registry of Deeds Date: \_\_\_\_\_
- Notified Building Inspector of Special Permit filing Date: \_\_\_\_\_

**TOWN OF ARLINGTON**  
 Dimensional and Parking Information  
 for Application to  
 The Arlington Redevelopment Board

Docket No. \_\_\_\_\_

Property Location 483 SUMMER ST, ARLINGTON, MA. Zoning District D 2

Owner: CAMPOBASSO PROPERTIES LLC Address: 290 MASS AVE, ARLINGTON, MA 02474

Present Use/Occupancy: No. of Dwelling Units: VACANT Uses and their gross square feet: AUTO REPAIR 1,148'  
 Proposed Use/Occupancy: No. of Dwelling Units: MIX USE 4 STORES-1 OFFICE 7 RESIDENCE Uses and their gross square feet: STORES 3,524' OFFICE 782' RESIDENCES 7,100'

	Present Conditions	Proposed Conditions	Min. or Max. Required by Zoning for Proposed Use
Lot Size	10,000'	10,000'	min. MIN.
Frontage	100 ft	100 L.F.	min. 56 L.F.
Floor Area Ratio	.11	1.36	max. 1.5
Lot Coverage (%) (where applicable)	NA	NA	max. NA
Lot Area per Dwelling Unit (square feet)	NA	1,429'	min. 1,450'
Front Yard Depth (Ft.)	—	—	min. —
Side Yard Width (Ft.)	right side	—	min. —
Rear Yard Depth (Ft.)		—	min. —
Height	—	—	min. —
Stories	1	3	stories 3
Feet	20'	38'	feet 40
Open Space (% of G.F.A.) <u>RESIDENTIAL</u>	—	—	min. —
Landscaped (s.f.)	NA	969'	(s.f.) 710'
Usable (s.f.)		1,420'	(s.f.) 1,420'
Parking Spaces (No.)	NA	9	min. 79
Parking Area Setbacks (Ft.) (where applicable)	NA	5'	min. 5'
Loading Spaces (No.)	NA	SHARED	min. 1
Type of Construction	<u>FIRE PROTECTED WOOD FRAME</u>		
Distance to Nearest Building	—	22'	min. —

*A.R. Ronayne & Sons LLC*



*28 Grove Street Place  
Arlington, MA 02474  
(781) 648-0627*

### **Site Plan**

Please see:

Proposed Site Plan  
Of  
483 & 489 Summer Street  
In  
Arlington, MA

Prepared By: Paul J. Finocchio P.L.S. No.36115  
P.J.F. and Associates  
4 Highland Avenue  
Wakefield, MA 01880  
(781)246-5426

Plan Includes:

Dimensions of Lot  
Proposed Building and Set Backs  
Proposed Drainage  
Dumpster Location  
Landscape Layout

*A. R. Ronayne & Sons LLC*



*28 Grove Street Place  
Arlington, MA 02474  
(781) 648-0627*

**Proposed Structure**

Please see:

Proposed      483 Summer Street  
                  Arlington, MA

Prepared By: A. R. Ronayne & Sons LLC  
                  28 Grove Street Place  
                  Arlington, MA 02474

Plan Includes:

- Floor Plans for cellar, first, second and third floors
- Elevations of all sides of the building

*Sullivan Engineering Group, LLC*  
*Civil Engineers & Land Development Consultants*

November 21, 2016

Town of Arlington Engineering Department

**Re: 483-489 Summer Street, Arlington  
Site Redevelopment**

To Whom It May Concern:

The owner of #483-#489 Summer Street is seeking to redevelop a portion of the property, specifically #483 Summer Street. In order to mitigate increases in pavement, walkways, and building areas the applicant is proposing to install porous pavement with a constructed stone subbase to provide storage and infiltration of stormwater runoff. Soil testing was conducted on the property on 8/25/16 by Jack Sullivan, PE, CSE. The site was predominately fill in the front of the site and a Loamy Sand was identified to the rear of the site. There was no indication of a seasonal high groundwater table to a depth of 84". The NRCS soil maps show this area as "urban soils" and as such the site was modeled for "B" type soils. The Site Plans for this project prepared by PJF Associates provide a construction detail showing the porous pavement specifications including the subbase preparation. Additionally, an Operation and Maintenance plan for short term & long term maintenance is shown on this detail sheet and the O&M plan should be part of the Conditions of Approval. As a conservative approach, the porous pavement was modeled with an exfiltration rate of 60 MPI which is equivalent to a Sandy Loam – Class B soil under the Rawl's method.

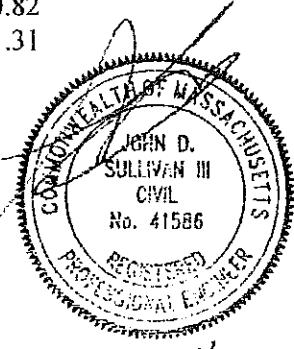
All existing pavement areas onsite (@ #483 Summer Street) will be removed and replaced with porous pavement and the required subbase to provide consistency in maintenance for the site in the post development scenario. The roofed area of the proposed building will be conveyed via 4" HDPE solid pipe into the subbase material and then the roof drain shall change to 4" HDPE perforated pipe. A minimum of two feet of cover should be provided over the roof drain within the travel way.

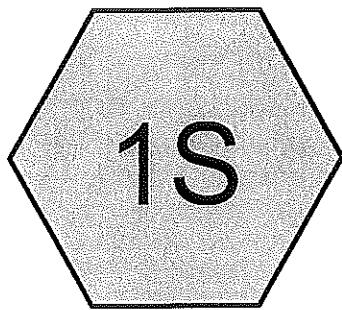
The HydroCAD report models the Predevelopment Condition vs. Postdevelopment Condition for the entire site area. The stormwater design reduces the peak rate of runoff and volume for the 2, 10, and 100 year storm event. The following is summary of the peak rate of runoff for various storm events:

<u>Storm Event</u>	Predevelopment (cfs)	Postdevelopment (cfs)
2 Year	0.52	0.06
10 Year	0.82	0.12
100 Year	1.31	0.22

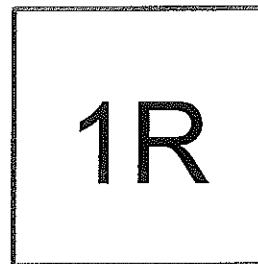
Very Truly Yours,

John (Jack) D. Sullivan III, PE

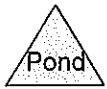
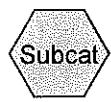




Total Site Area



Total Offsite



Link

Drainage Diagram for Predevelopment\_11212016  
Prepared by {enter your company name here} 11/21/2016  
HydroCAD® 7.00 s/n 001433 © 1986-2003 Applied Microcomputer Systems

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Total Site Area**

Runoff Area=10,000 sf Runoff Depth=1.86"  
Tc=6.0 min CN=90 Runoff=0.52 cfs 0.036 af

**Reach 1R: Total Offsite**

Inflow=0.52 cfs 0.036 af  
Outflow=0.52 cfs 0.036 af

**Total Runoff Area = 0.230 ac Runoff Volume = 0.036 af Average Runoff Depth = 1.86"**

**Subcatchment 1S: Total Site Area**

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 1.86"

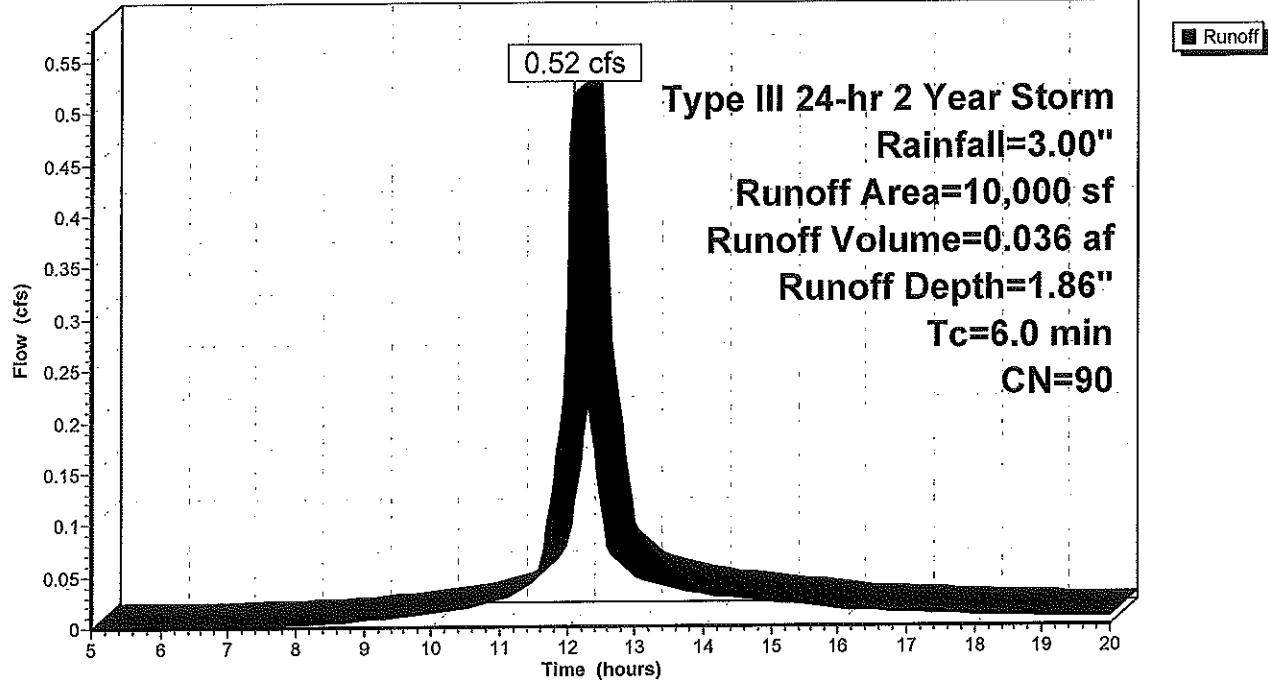
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 2 Year Storm Rainfall=3.00"

Area (sf)	CN	Description
1,165	98	Ex. Building Roof
5,972	98	Pavement/Conc Areas
2,863	69	50-75% Grass cover, Fair, HSG B
10,000	90	Weighted Average

Tc	Length (min)	Slope (feet)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	Direct Entry,				

**Subcatchment 1S: Total Site Area**

Hydrograph



**Reach 1R: Total Offsite**

Inflow Area = 0.230 ac, Inflow Depth = 1.86" for 2 Year Storm event

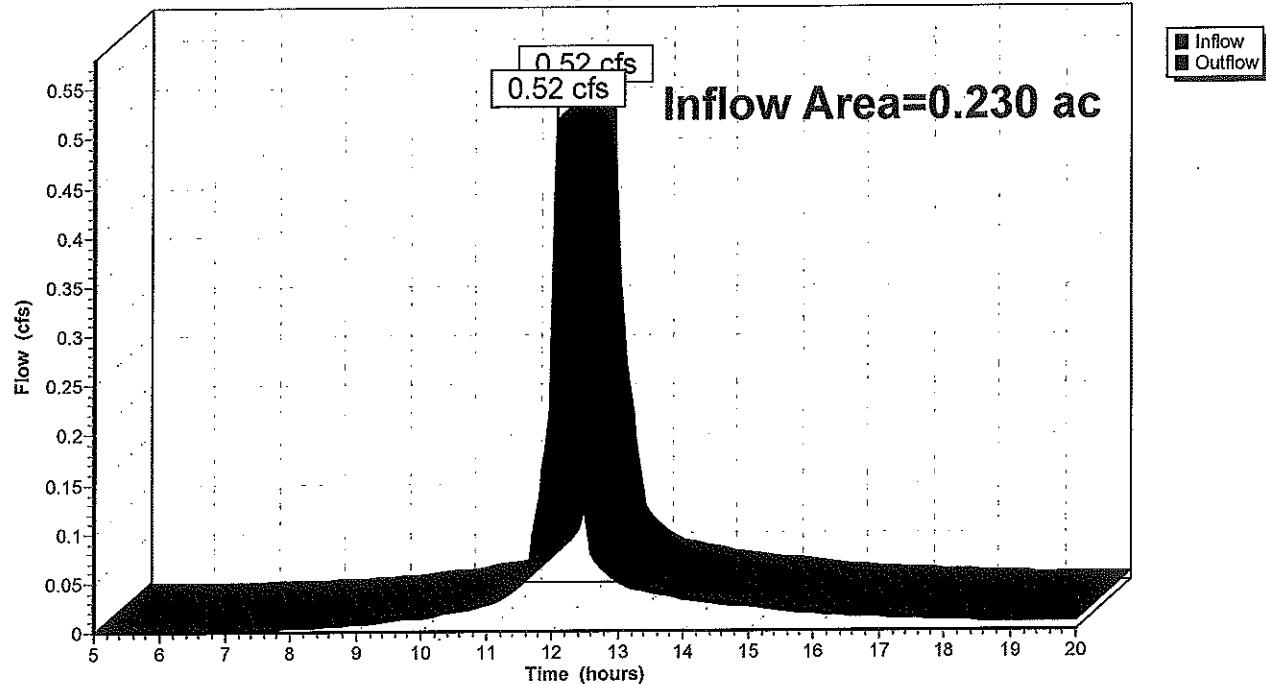
Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.036 af

Outflow = 0.52 cfs @ 12.09 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Reach 1R: Total Offsite**

Hydrograph



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Total Site Area**

Runoff Area=10,000 sf Runoff Depth=3.02"

Tc=6.0 min CN=90 Runoff=0.82 cfs 0.058 af

**Reach 1R: Total Offsite**

Inflow=0.82 cfs 0.058 af

Outflow=0.82 cfs 0.058 af

**Total Runoff Area = 0.230 ac Runoff Volume = 0.058 af Average Runoff Depth = 3.02"**

**Subcatchment 1S: Total Site Area**

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.058 af, Depth= 3.02"

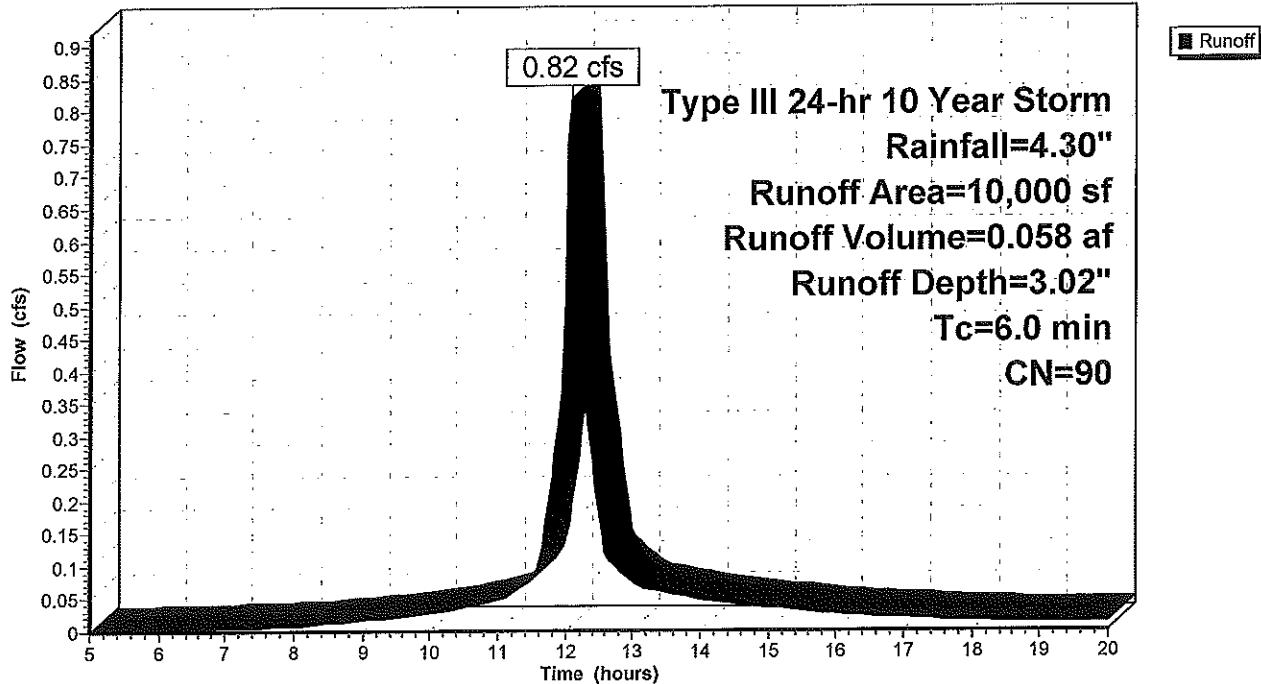
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 Year Storm Rainfall=4.30"

Area (sf)	CN	Description
1,165	98	Ex. Building Roof
5,972	98	Pavement/Conc Areas
2,863	69	50-75% Grass cover, Fair, HSG B
10,000	90	Weighted Average

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0	Direct Entry,				

**Subcatchment 1S: Total Site Area**

Hydrograph



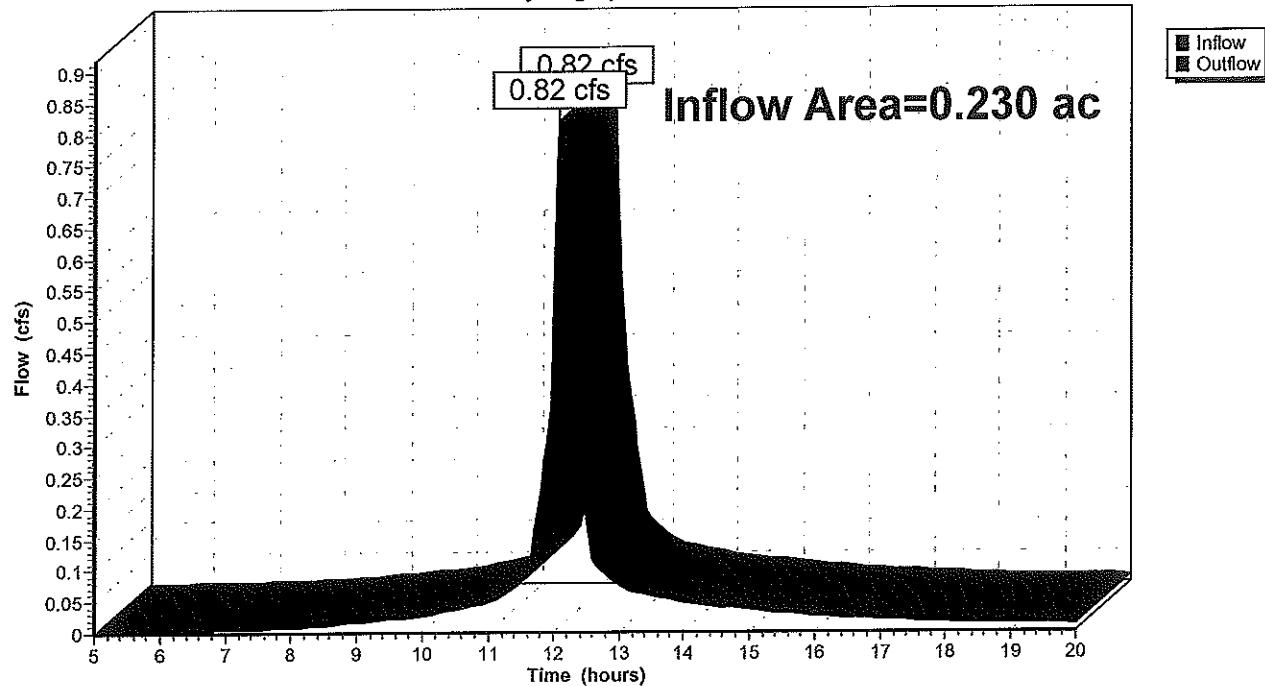
**Reach 1R: Total Offsite**

Inflow Area = 0.230 ac, Inflow Depth = 3.02" for 10 Year Storm event

Inflow = 0.82 cfs @ 12.09 hrs, Volume= 0.058 af

Outflow = 0.82 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Reach 1R: Total Offsite****Hydrograph**

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Total Site Area**

Runoff Area=10,000 sf Runoff Depth=4.95"

Tc=6.0 min CN=90 Runoff=1.31 cfs 0.095 af

**Reach 1R: Total Offsite**

Inflow=1.31 cfs 0.095 af

Outflow=1.31 cfs 0.095 af

**Total Runoff Area = 0.230 ac Runoff Volume = 0.095 af Average Runoff Depth = 4.95"**

**Subcatchment 1S: Total Site Area**

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 0.095 af, Depth= 4.95"

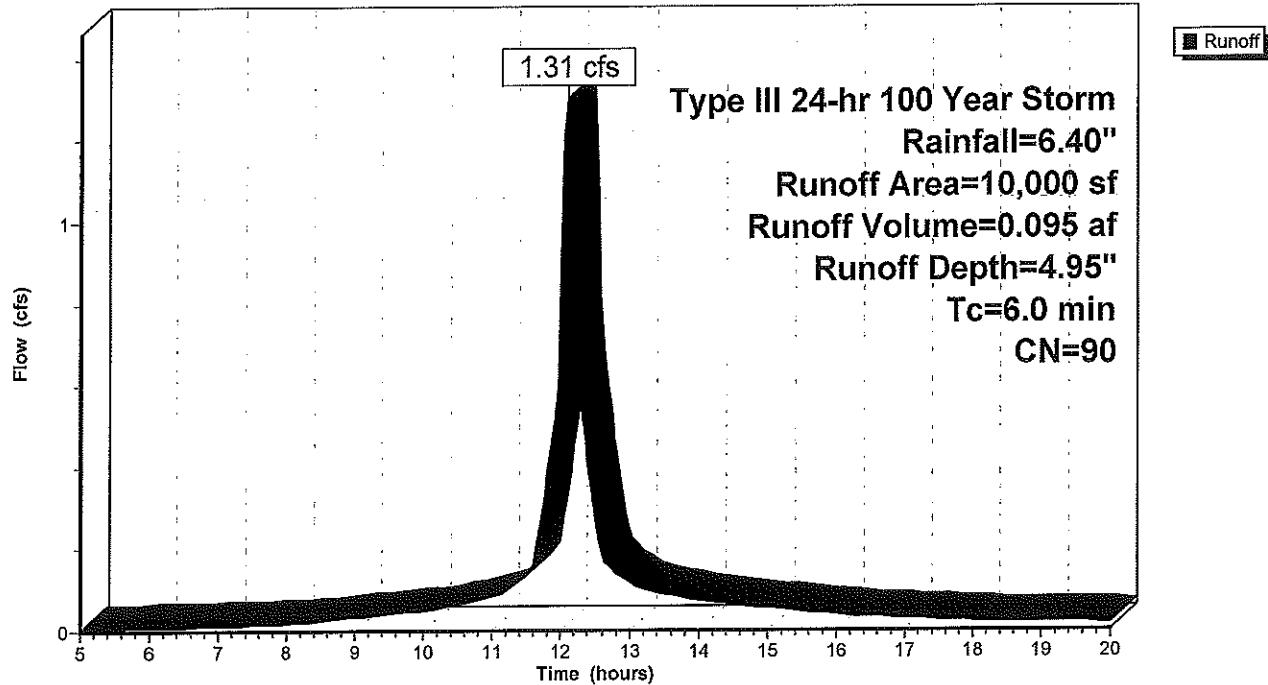
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 Year Storm Rainfall=6.40"

Area (sf)	CN	Description
1,165	98	Ex. Building Roof
5,972	98	Pavement/Conc Areas
2,863	69	50-75% Grass cover, Fair, HSG B
10,000	90	Weighted Average

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0	Direct Entry,				

**Subcatchment 1S: Total Site Area**

Hydrograph



**Reach 1R: Total Offsite**

Inflow Area = 0.230 ac, Inflow Depth = 4.95" for 100 Year Storm event

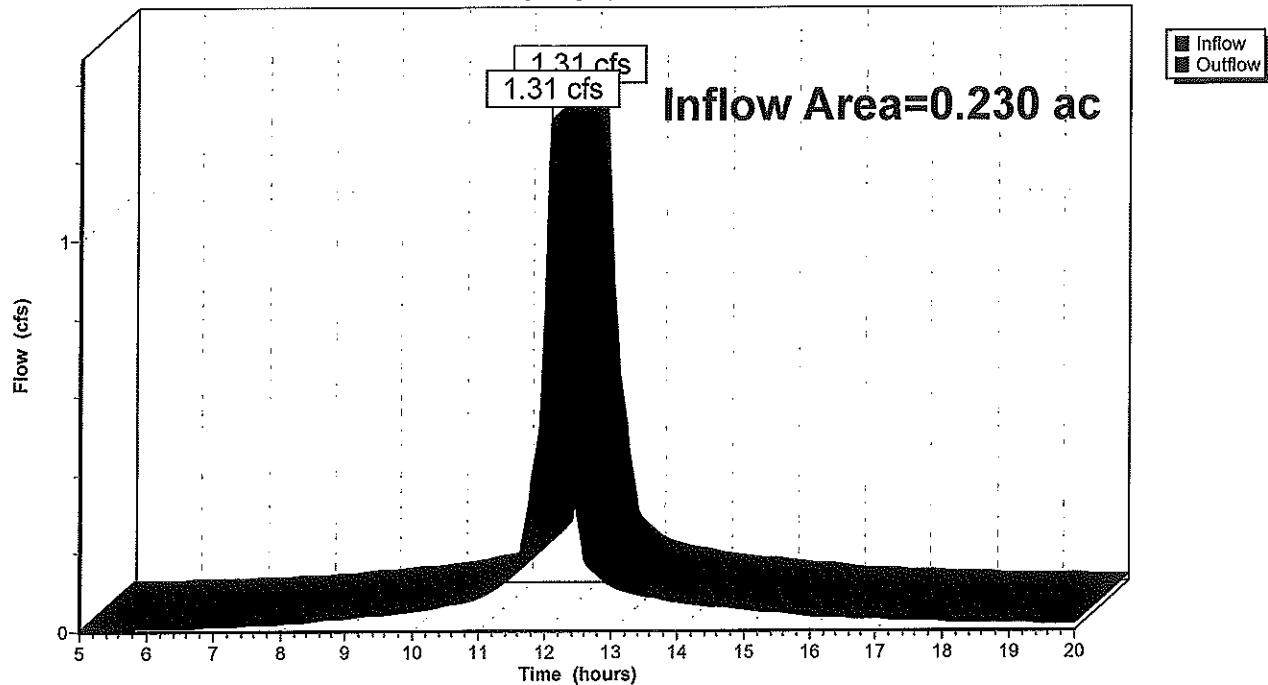
Inflow = 1.31 cfs @ 12.09 hrs, Volume= 0.095 af

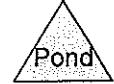
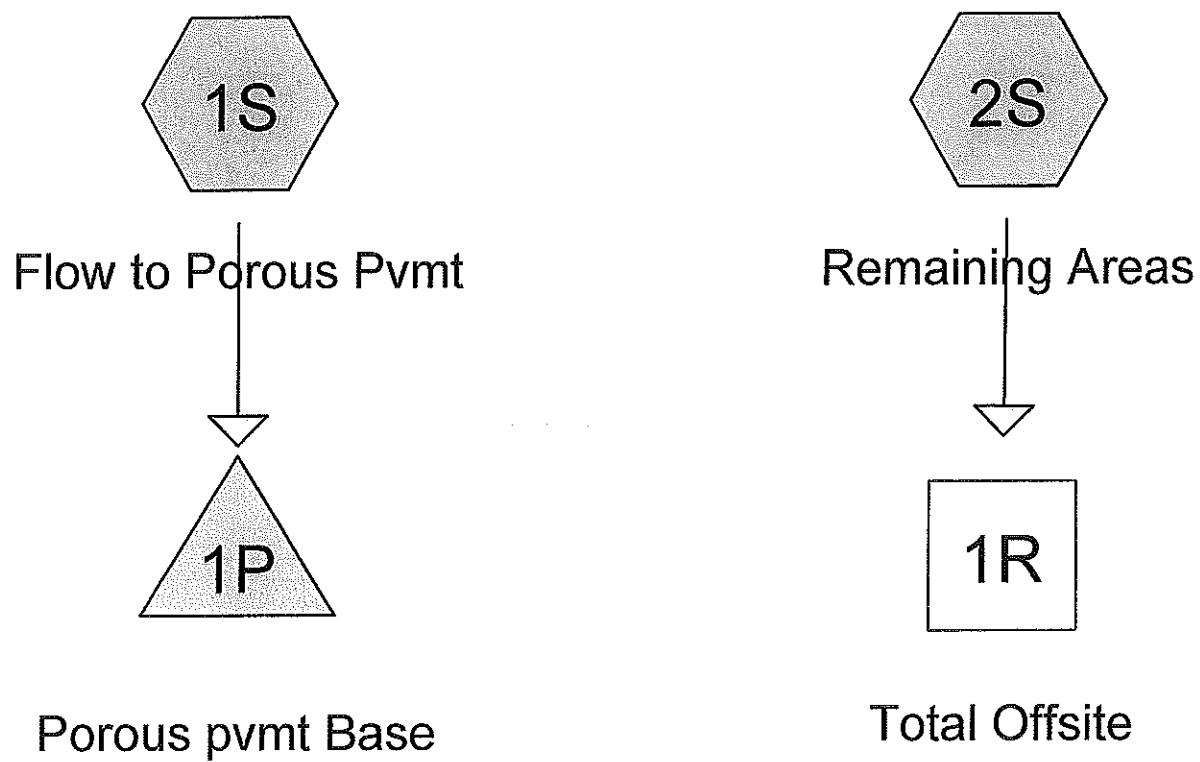
Outflow = 1.31 cfs @ 12.09 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Reach 1R: Total Offsite**

Hydrograph





Link

Drainage Diagram for Postdevelopment\_11212016  
 Prepared by {enter your company name here} 11/21/2016  
 HydroCAD® 7.00 s/n 001433 © 1986-2003 Applied Microcomputer Systems

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Flow to Porous Pvmt**

Runoff Area=7,914 sf Runoff Depth=1.67"

Tc=462.0 min CN=98 Runoff=0.05 cfs 0.025 af

**Subcatchment 2S: Remaining Areas**

Runoff Area=2,086 sf Runoff Depth=1.09"

Tc=6.0 min CN=79 Runoff=0.06 cfs 0.004 af

**Reach 1R: Total Offsite**

Inflow=0.06 cfs 0.004 af

Outflow=0.06 cfs 0.004 af

**Pond 1P: Porous pvmt Base**

Peak Elev=97.01' Storage=18 cf Inflow=0.05 cfs 0.025 af

Outflow=0.05 cfs 0.025 af

**Total Runoff Area = 0.230 ac Runoff Volume = 0.030 af Average Runoff Depth = 1.55"**

**Subcatchment 1S: Flow to Porous Pvmt**

Runoff = 0.05 cfs @ 17.94 hrs, Volume= 0.025 af, Depth= 1.67"

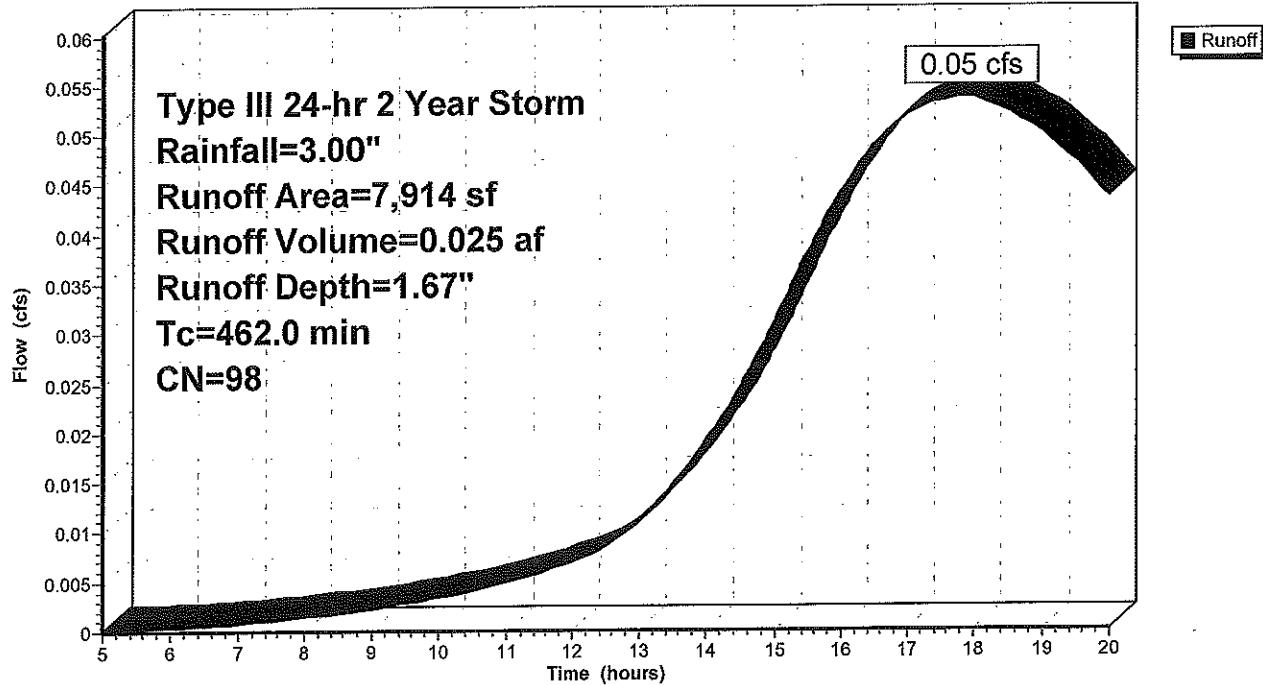
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2 Year Storm Rainfall=3.00"

Area (sf)	CN	Description
3,860	98	Porous Pvmt
3,892	98	Portion of Roofed Area
162	98	dumpster pad area
7,914	98	Weighted Average

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
462.0	Direct Entry,				

**Subcatchment 1S: Flow to Porous Pvmt**

Hydrograph



### Subcatchment 2S: Remaining Areas

Runoff = 0.06 cfs @ 12.10 hrs, Volume= 0.004 af, Depth= 1.09"

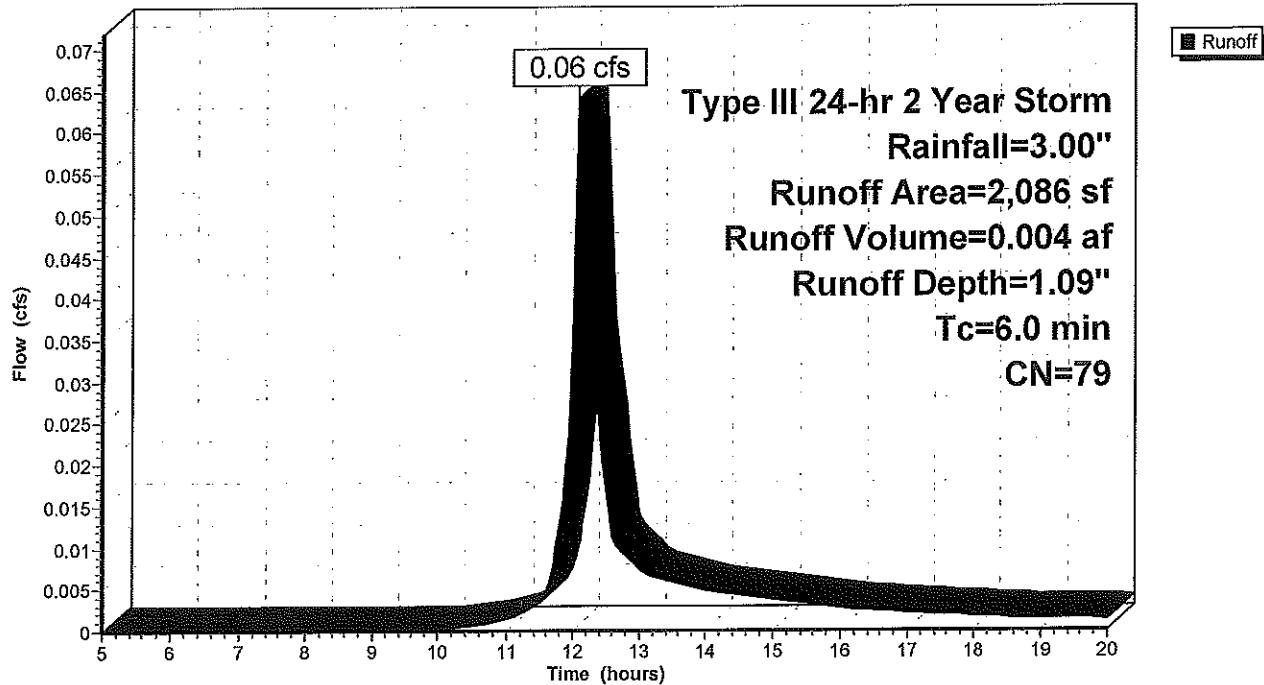
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 2 Year Storm Rainfall=3.00"

Area (sf)	CN	Description
426	98	Walkway
307	98	Asphalt Berm
1,353	69	50-75% Grass cover, Fair, HSG B
2,086	79	Weighted Average

Tc	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	6.0				Direct Entry,

### Subcatchment 2S: Remaining Areas

Hydrograph



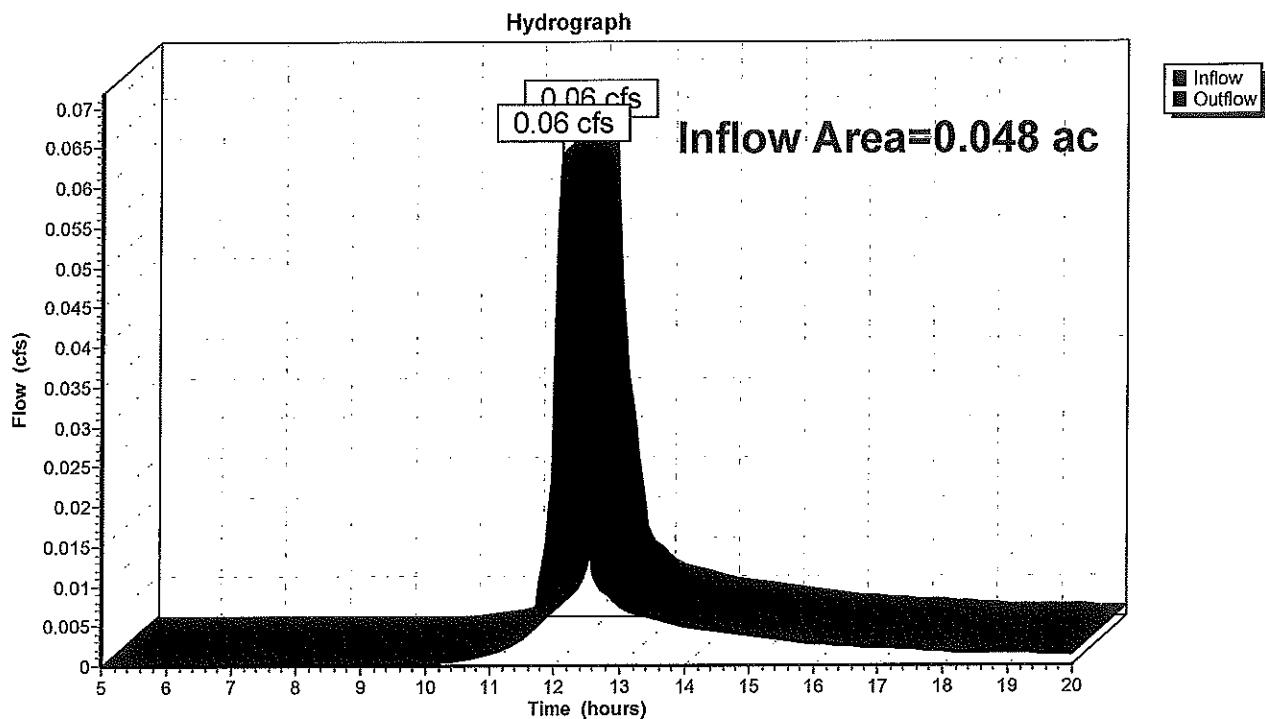
**Reach 1R: Total Offsite**

Inflow Area = 0.048 ac, Inflow Depth = 1.09" for 2 Year Storm event

Inflow = 0.06 cfs @ 12.10 hrs, Volume= 0.004 af

Outflow = 0.06 cfs @ 12.10 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Reach 1R: Total Offsite**

### Pond 1P: Porous pvmnt Base

Design Perc rate of soils = 60 MPI

Inflow Area = 0.182 ac, Inflow Depth = 1.67" for 2 Year Storm event  
 Inflow = 0.05 cfs @ 17.94 hrs, Volume= 0.025 af  
 Outflow = 0.05 cfs @ 17.99 hrs, Volume= 0.025 af, Atten= 0%, Lag= 3.0 min  
 Discarded = 0.05 cfs @ 17.99 hrs, Volume= 0.025 af

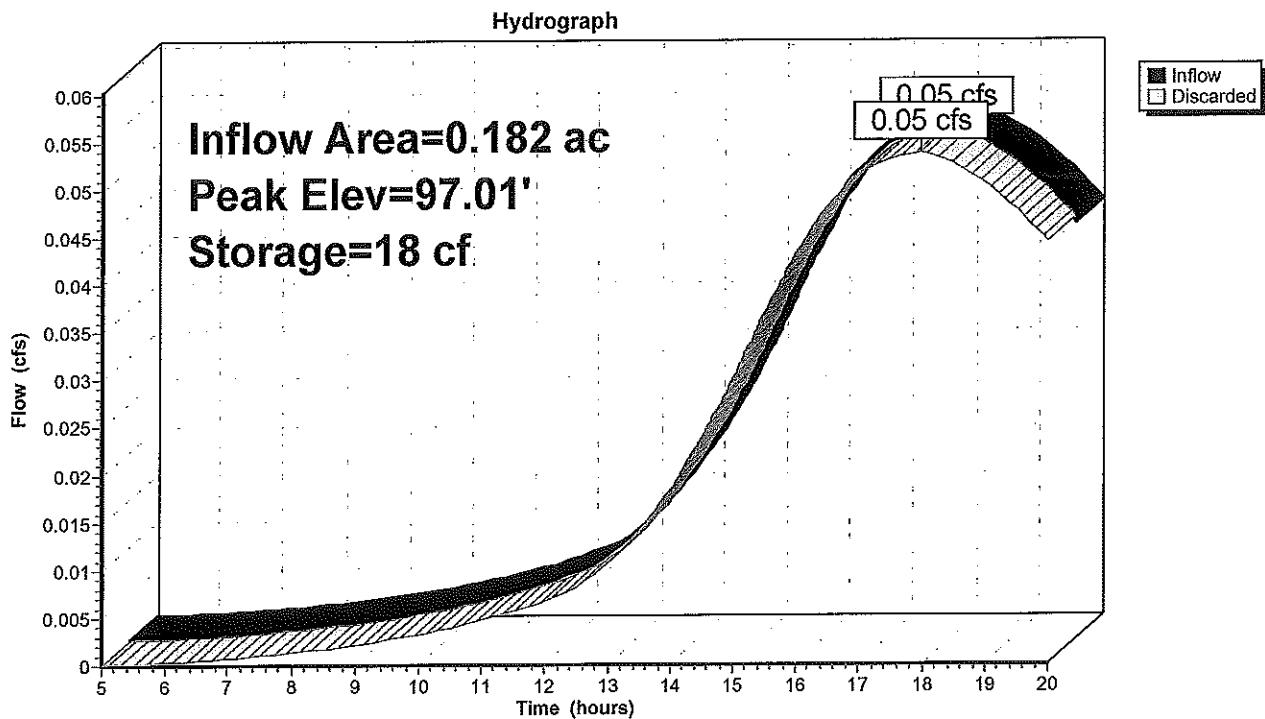
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 97.01' @ 17.99 hrs Surf.Area= 3,860 sf Storage= 18 cf  
 Plug-Flow detention time= 5.7 min calculated for 0.025 af (99% of inflow)  
 Center-of-Mass det. time= 2.8 min ( 999.4 - 996.5 )

#	Invert	Avail.Storage	Storage Description
1	97.00'	3,088 cf	38.60'W x 100.00'L x 2.00'H Prismatoid 7,720 cf Overall x 40.0% Voids

#	Routing	Invert	Outlet Devices
1	Discarded	0.00'	0.001400 fpm Exfiltration over entire Surface area

Discarded OutFlow Max=0.09 cfs @ 17.99 hrs HW=97.01' (Free Discharge)  
 ↑1=Exfiltration (Exfiltration Controls 0.09 cfs)

### Pond 1P: Porous pvmnt Base



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Flow to Porous Pvmt**

Runoff Area=7,914 sf Runoff Depth=2.47"  
Tc=462.0 min CN=98 Runoff=0.08 cfs 0.037 af

**Subcatchment 2S: Remaining Areas**

Runoff Area=2,086 sf Runoff Depth=2.05"  
Tc=6.0 min CN=79 Runoff=0.12 cfs 0.008 af

**Reach 1R: Total Offsite**

Inflow=0.12 cfs 0.008 af  
Outflow=0.12 cfs 0.008 af

**Pond 1P: Porous pvmt Base**

Peak Elev=97.02' Storage=27 cf Inflow=0.08 cfs 0.037 af  
Outflow=0.08 cfs 0.037 af

**Total Runoff Area = 0.230 ac Runoff Volume = 0.046 af Average Runoff Depth = 2.38"**

**Subcatchment 1S: Flow to Porous Pvmt**

Runoff = 0.08 cfs @ 17.94 hrs, Volume= 0.037 af, Depth= 2.47"

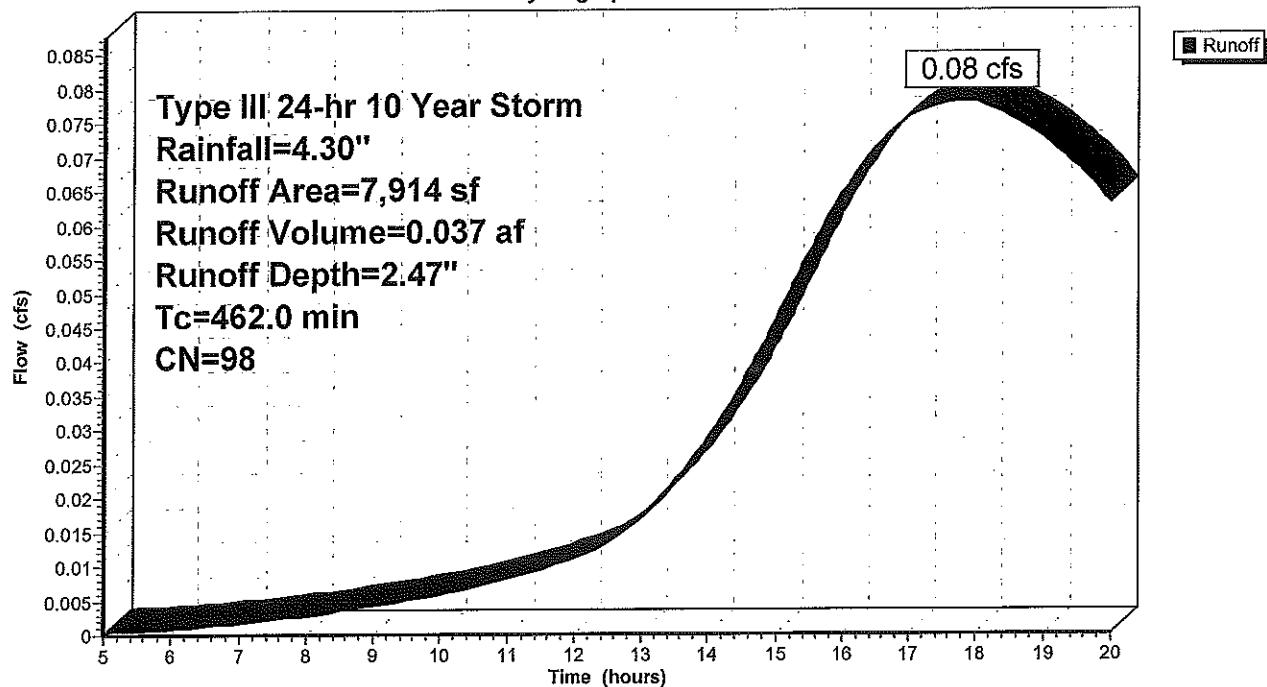
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 Year Storm Rainfall=4.30"

Area (sf)	CN	Description
3,860	98	Porous Pvmt
3,892	98	Portion of Roofed Area
162	98	dumpster pad area
7,914	98	Weighted Average

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
462.0	Direct Entry,				

**Subcatchment 1S: Flow to Porous Pvmt**

Hydrograph



### Subcatchment 2S: Remaining Areas

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.008 af, Depth= 2.05"

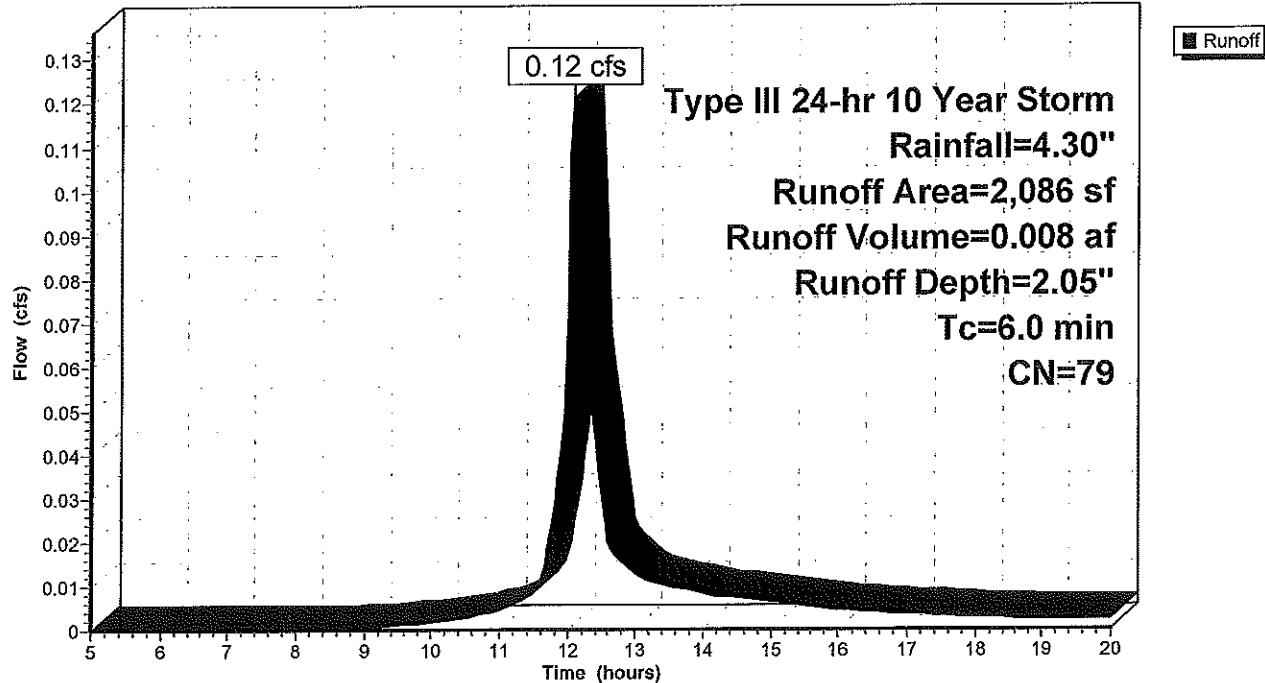
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 10 Year Storm Rainfall=4.30"

Area (sf)	CN	Description
426	98	Walkway
307	98	Asphalt Berm
1,353	69	50-75% Grass cover, Fair, HSG B
2,086	79	Weighted Average

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0	Direct Entry,				

### Subcatchment 2S: Remaining Areas

Hydrograph



**Reach 1R: Total Offsite**

Inflow Area = 0.048 ac, Inflow Depth = 2.05" for 10 Year Storm event

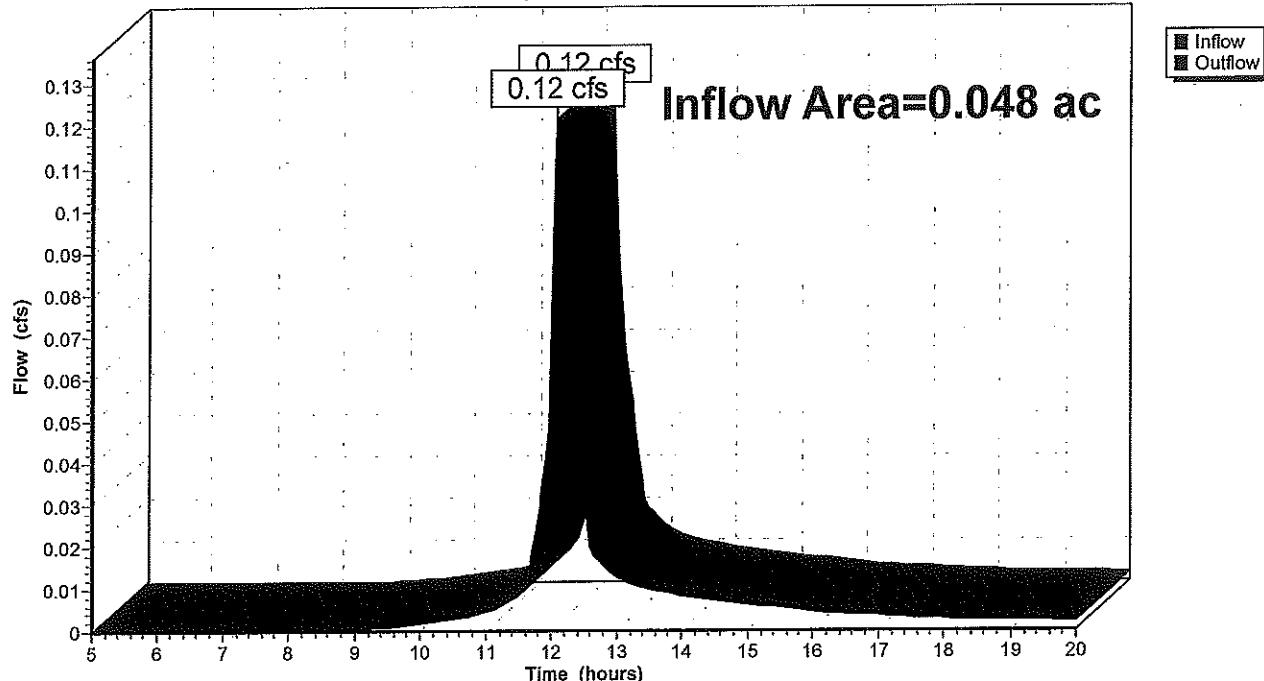
Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.008 af

Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Reach 1R: Total Offsite**

Hydrograph



**Pond 1P: Porous pvmnt Base**

Design Perc rate of soils = 60 MPI

Inflow Area = 0.182 ac, Inflow Depth = 2.47" for 10 Year Storm event  
 Inflow = 0.08 cfs @ 17.94 hrs, Volume= 0.037 af  
 Outflow = 0.08 cfs @ 17.99 hrs, Volume= 0.037 af, Atten= 0%, Lag= 2.8 min  
 Discarded = 0.08 cfs @ 17.99 hrs, Volume= 0.037 af

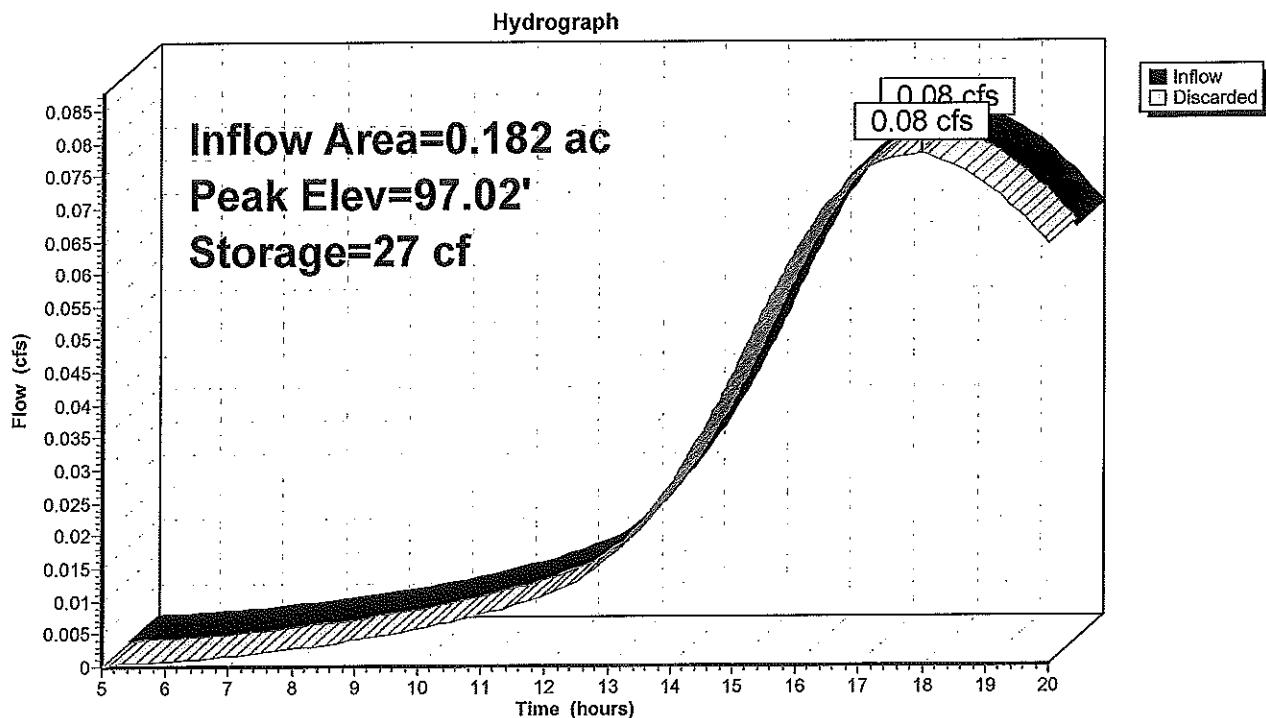
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 97.02' @ 17.99 hrs Surf.Area= 3,860 sf Storage= 27 cf  
 Plug-Flow detention time= 5.7 min calculated for 0.037 af (99% of inflow)  
 Center-of-Mass det. time= 2.8 min ( 992.9 - 990.1 )

#	Invert	Avail.Storage	Storage Description
1	97.00'	3,088 cf	38.60'W x 100.00'L x 2.00'H Prismatoid 7,720 cf Overall x 40.0% Voids

#	Routing	Invert	Outlet Devices
1	Discarded	0.00'	0.001400 fpm Exfiltration over entire Surface area

**Discarded OutFlow** Max=0.09 cfs @ 17.99 hrs HW=97.02' (Free Discharge)

↑=1=Exfiltration (Exfiltration Controls 0.09 cfs)

**Pond 1P: Porous pvmnt Base**

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Flow to Porous Pymt**

Runoff Area=7,914 sf Runoff Depth=3.78"  
Tc=462.0 min CN=98 Runoff=0.12 cfs 0.057 af

**Subcatchment 2S: Remaining Areas**

Runoff Area=2,086 sf Runoff Depth=3.79"  
Tc=6.0 min CN=79 Runoff=0.22 cfs 0.015 af

**Reach 1R: Total Offsite**

Inflow=0.22 cfs 0.015 af  
Outflow=0.22 cfs 0.015 af

**Pond 1P: Porous pvmnt Base**

Peak Elev=97.21' Storage=321 cf Inflow=0.12 cfs 0.057 af  
Outflow=0.09 cfs 0.050 af

**Total Runoff Area = 0.230 ac Runoff Volume = 0.072 af Average Runoff Depth = 3.78"**

**Subcatchment 1S: Flow to Porous Pvmt**

Runoff = 0.12 cfs @ 17.94 hrs, Volume= 0.057 af, Depth= 3.78"

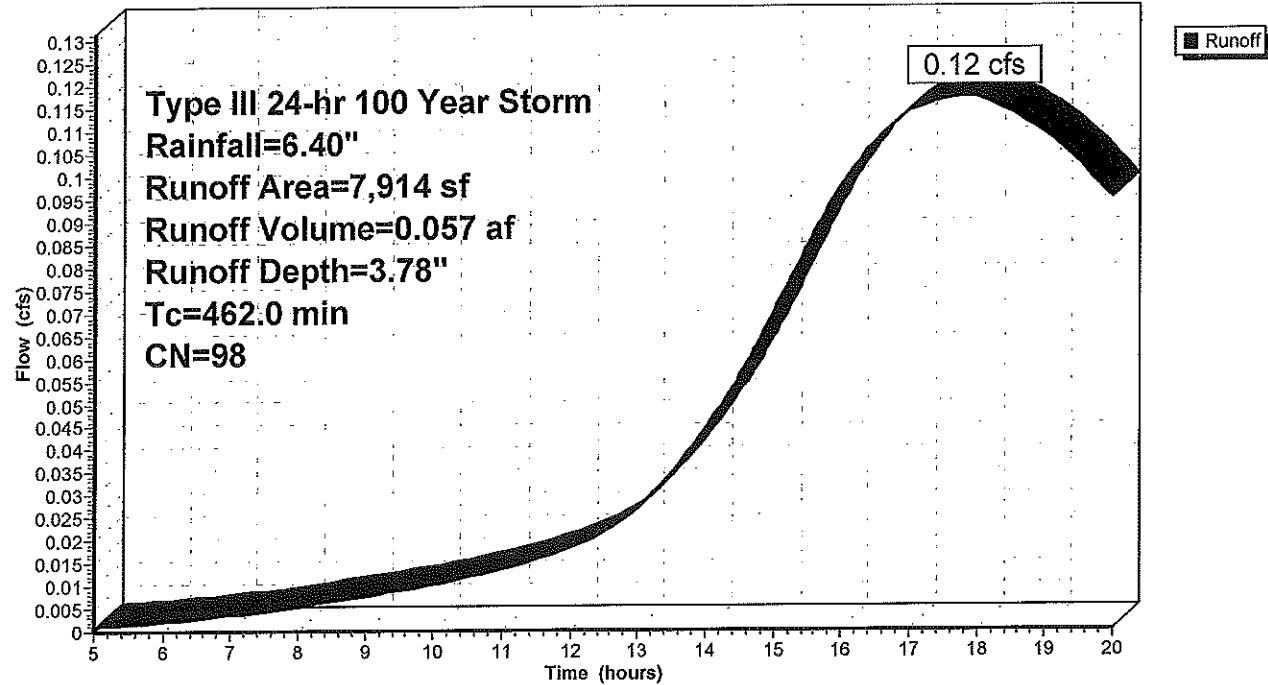
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 Year Storm Rainfall=6.40"

Area (sf)	CN	Description
3,860	98	Porous Pvmt
3,892	98	Portion of Roofed Area
162	98	dumpster pad area
7,914	98	Weighted Average

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
462.0	Direct Entry,				

**Subcatchment 1S: Flow to Porous Pvmt**

Hydrograph



### Subcatchment 2S: Remaining Areas

Runoff = 0.22 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 3.79"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

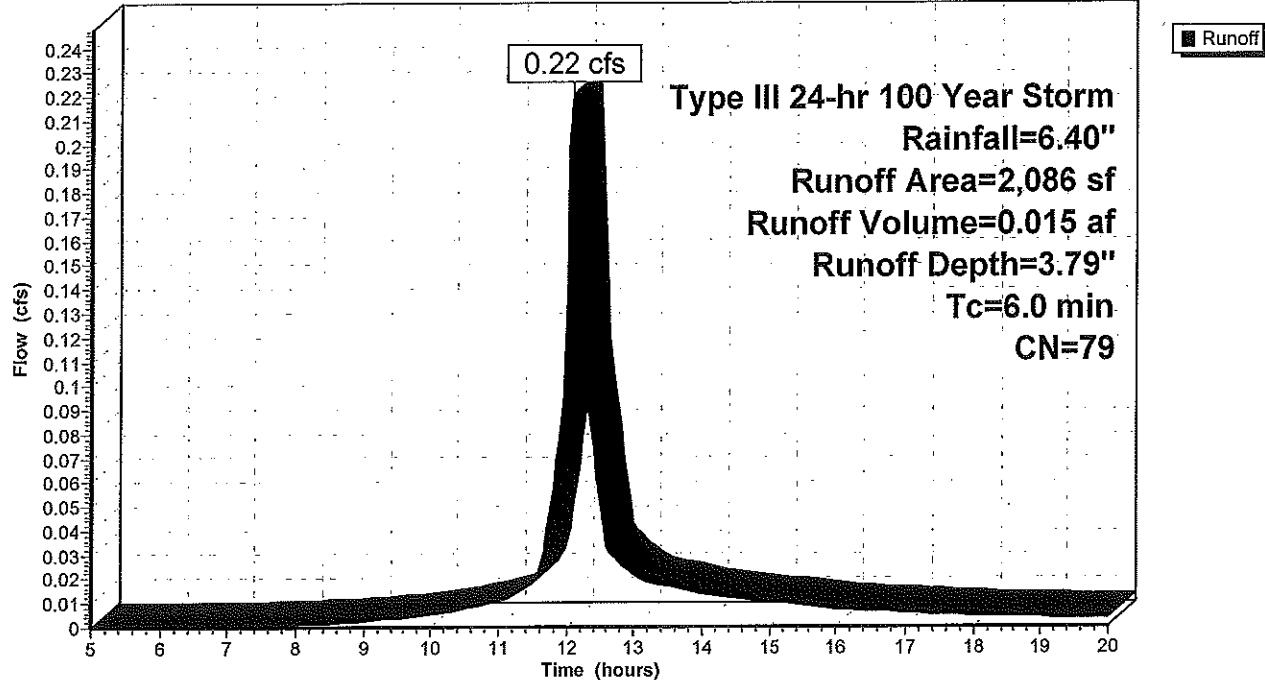
Type III 24-hr 100 Year Storm Rainfall=6.40"

Area (sf)	CN	Description
426	98	Walkway
307	98	Asphalt Berm
1,353	69	50-75% Grass cover, Fair, HSG B
2,086	79	Weighted Average

Tc	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

### Subcatchment 2S: Remaining Areas

Hydrograph



**Reach 1R: Total Offsite**

Inflow Area = 0.048 ac, Inflow Depth = 3.79" for 100 Year Storm event

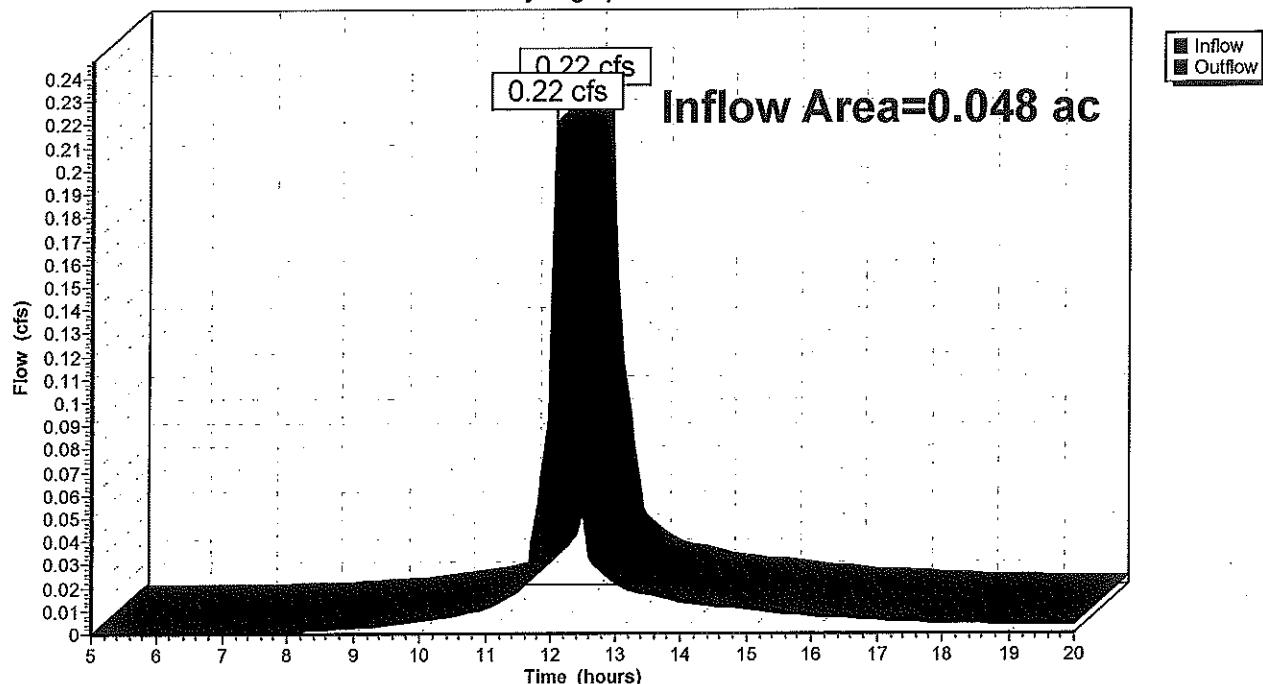
Inflow = 0.22 cfs @ 12.09 hrs, Volume= 0.015 af

Outflow = 0.22 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Reach 1R: Total Offsite**

Hydrograph



### Pond 1P: Porous pvmt Base

Design Perc rate of soils = 60 MPI

Inflow Area = 0.182 ac, Inflow Depth = 3.78" for 100 Year Storm event  
 Inflow = 0.12 cfs @ 17.94 hrs, Volume= 0.057 af  
 Outflow = 0.09 cfs @ 15.80 hrs, Volume= 0.050 af, Atten= 23%, Lag= 0.0 min  
 Discarded = 0.09 cfs @ 15.80 hrs, Volume= 0.050 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 97.21' @ 20.00 hrs Surf.Area= 3,860 sf Storage= 321 cf  
 Plug-Flow detention time= 19.0 min calculated for 0.050 af (87% of inflow)  
 Center-of-Mass det. time= (not calculated: outflow precedes inflow)

#	Invert	Avail.Storage	Storage Description
1	97.00'	3,088 cf	38.60'W x 100.00'L x 2.00'H Prismatoid 7,720 cf Overall x 40.0% Voids

#	Routing	Invert	Outlet Devices
1	Discarded	0.00'	0.001400 fpm Exfiltration over entire Surface area

Discarded OutFlow Max=0.09 cfs @ 15.80 hrs HW=97.02' (Free Discharge)  
 ↑1=Exfiltration (Exfiltration Controls 0.09 cfs)

### Pond 1P: Porous pvmt Base

Hydrograph

